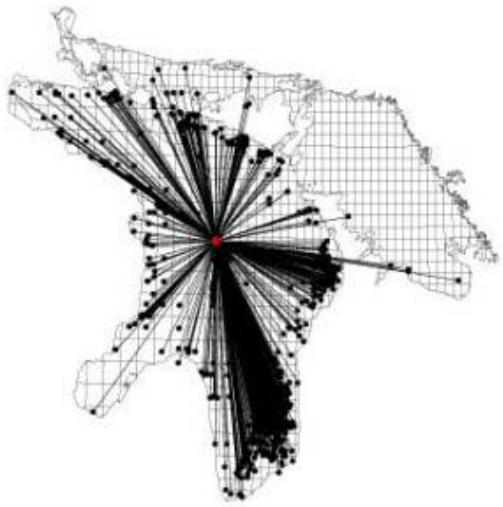
U.S. Fish & Wildlife Service

Alpena FRO Accomplishment Report

Aquatic Species Conservation and Management



Service Presents Results of Lake Huron Lake Trout Movement Study at LHTC Meeting

Fishery Biologist Aaron Woldt and Project Leader Jerry McClain of the Alpena FRO attended the winter Lake Huron Technical Committee (LHTC) meeting from January 18-20 in Sarnia, Ontario. Woldt presented results from the Lake Huron lake trout movement study, which compared coded-wire-tag (CWT) returns of lake trout yearlings stocked at 8 discrete movement sites across the lake. For this study, four year classes of lake trout (1991, 1993, 1995, 1997) were planted at Adams Point in MH-1, Middle Island in MH-2, Sturgeon Point in MH-3, and Point Au Barques in MH-4. Three additional year classes (2001, 2002, 2003) were subsequently stocked at each of the four original sites and a new site off Point Clark in Canadian waters. Another year class (2004) will be planted at each of these sites in 2005 as well. CWT lake trout have been stocked annually in the Drummond Island Refuge in MH-1 since 1985 and in the mid-lake Six Fathom Bank Refuge from 1985 to 1998. Two year classes (1999, 2000) of CWT lake trout were also planted on Yankee Reef (mid-lake).

Over the course of the study, there have been 1,276 returns of Adams Point fish, 1,076 returns of Middle Island fish, 1,088 returns of Sturgeon Point fish, 1,275 returns of Point Au Barques fish, 5,049 returns of Drummond Island fish, 5,443 returns of Six Fathom Bank fish, 68 returns of Yankee Reef fish, and 0 returns of Point Clark fish in agency surveys, commercial fishing gear, and the recreational fisheries (all gears combined). Woldt adjusted returns in survey gill nets and large mesh commercial gill nets for effort and estimated dispersal radii with standard errors and directions for the 4 nearshore stocking sites. Analysis of CWT returns in the refuge and mid-lake sites is incomplete at this time. On average, lake trout ranged 21.8 ± 1.4 mi from Adams Point, 27.6 ± 1.8 mi from Middle Island, 32.3 ± 2.2 mi from Sturgeon Point, and 24.0 ± 2.9 mi from Point Au Barques. There was little variation in average distance moved by year at each site. In general lake trout moved large distances at early ages with some fish moving 100 miles or more by age 2. Only fish from Adams Point (increasing) and Point Au Barques (decreasing) showed statistically significant trends in distance moved by fish age.

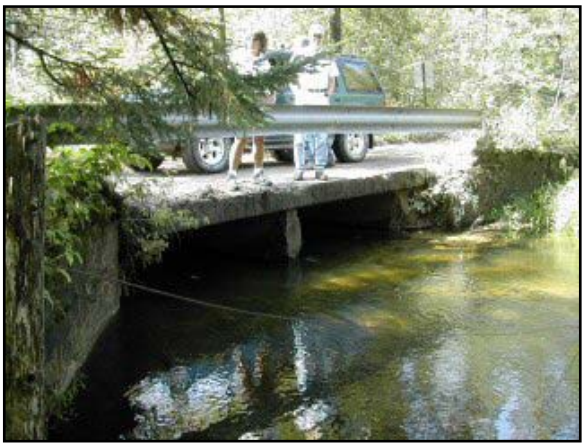
Ongoing analyses includes fitting returns per effort at each site using an exponential sigmoid model to estimate lake trout home range, completing effort adjustments for the refuge and mid-lake sites, comparing movement patterns by strain for the Drummond Island and Six Fathom

Bank sites, and a deeper analysis of differential movement by year class at each site. A manuscript summarizing the results of the Lake Huron Lake Trout Movement study will be prepared when all analyses are complete.

Analyzing lake trout movement patterns allows managers to better delineate management units, better model lake trout population dynamics, and calculate safe harvest levels especially in 1836 Treaty waters. These outcomes are consistent with the Service's goal of building and maintaining self-sustaining populations of native fish species while meeting the needs of tribal communities under the "Aquatic Species Conservation and Management" priority of the Fisheries Program Vision for the Future.

Aaron Woldt

Aquatic Habitat Conservation and Management



Lovells Road Bridge on the AuSable River Scheduled for Replacement

Biologist Enterline met with the Otsego County Road Commission, Huron Pines Resource, Conservation & Development and the Headwaters Chapter of Trout Unlimited at the road commission office in Gaylord, Michigan on January 21. The U.S. Fish and Wildlife Service and partners have been raising funds for the past year to replace the ageing bridge that is currently in place at the Lovells Road/Crapo Creek crossing. Crapo Creek is a tributary of the North Branch of the AuSable River, and at the Lovells Road crossing the creek has been severely impacted by sediment loading. The deteriorated bridge will be replaced by an aluminum bottomless culvert, and road approaches to the bridge will be re-graded, paved, and proper ditches and sediment basins will be installed. Construction is scheduled to take place in the fall 2005 or early summer 2006. These actions will virtually eliminate sediment loading at the road crossing site. Repairs at this crossing will, over time, dramatically improve coldwater fisheries habitat for three river-miles of Crapo Creek.

Through natural river processes the riffles and pools that had been previously covered by sediment will be uncovered as the sediment moves downstream, creating feeding and spawning habitat for brook trout. The AuSable River Watershed has been federally designated as a Natural and Scenic River and the headwaters designated as a Blue Ribbon Trout Stream by the State of Michigan. Watershed restoration practices such as road crossing restoration contributes toward the "Aquatic Habitat Conservation and Management" component of the Service's Fisheries Program Vision for the Future.

Heather Enterline

Silver Creek Fish Passage Project

On January 20, Biologist Wells met with Kris Bruestle from Huron Pines RC&D and Eric Rose from the Presque Isle County Road Commission to discuss the Silver Creek road crossing project. The project consists of two undersized and perched culverts that negatively impact native brook trout passage. In addition to impeding fish movement, the culverts contribute large amounts of sediment into the system from erosion around the structures. Preliminary designs and cost estimates for the project were supplied by Eric Rose. The design replaces the culverts with a bottomless culvert constructed from a railroad tanker car. The Presque Isle County Road Commission successfully uses these structures on many of their road crossing including the Tomahawk Creek project which was funded by the US Fish and Wildlife Service (Service) Fish Passage program in 2004. The Silver Creek road crossing project will be funded from Huron Pines RC&D, the Presque Isle County Road Commission, the Service's Fish Passage Program, and possible future funding from the Michigan Department of Natural Resources.

This is an example of collaboration between government, watershed groups, and non profit organizations to enhance aquatic habitat which will benefit fish and wildlife resources. This project will enhance fish passage for brook trout into reaches of the Ocqueoc River Watershed. This project involves collaboration between many partners and addresses the Service's Fisheries Program Vision for the Future priority of "Aquatic Habitat Conservation and Management."

Susan Wells

Thunder Bay Project Implementation Working Committee

Fishery Biologist Aaron Woldt participated in a Working Committee meeting for the Thunder Bay Power Company's Thunder Bay River Project Implementation. The Working Committee was created to assist Thunder Bay Power (TBP) in meeting the requirements of its Federal Energy Regulatory Commission (FERC) license. Biologist Woldt is the Service representative on the Working Committee.

During the January 11, 2005 meeting the Working Committee discussed the funding status and additional funding needs of the Eurasian watermilfoil control project on Fletcher's Floodwaters, budget status of the FERC license settlement escrow account, work planned for 2 scheduled 2005 erosion remediation sites, and the fish passage study plan submitted by the Great Lakes Environmental Center (GLEC). Woldt, Kyle Kruger of Michigan DNR, and Jim Schramm of the Michigan Hydropower Relicensing Coalition (MHRC) continued to voice concerns over the expense of the study plan and suggested that other options like desktop modeling, review of historic data in the Thunder Bay River or similar systems, or joint agency sampling efforts should be explored before committing to the GLEC study. TBP reported that FERC has granted TBP an extension on the fish passage license article to allow the Working Committee more time

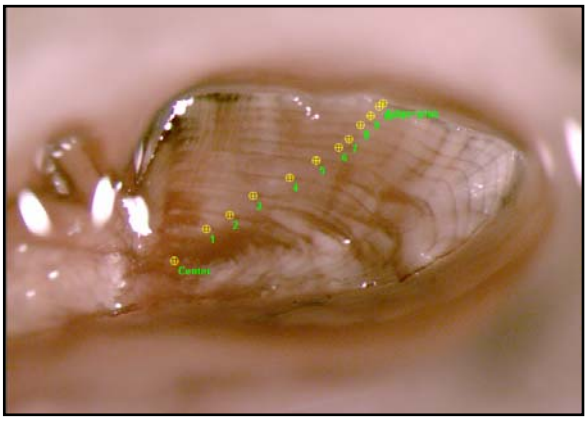
to address this issue. TBP stream gauge calibration and purple loosestrife and Eurasian watermilfoil mapping were also discussed.

The meeting was attended by member representatives from Michigan DNR, TBP, the MHRC, and the Service. In addition representatives from the Hubbard Lake Sportsmen and Improvement Association and the Northeast Michigan Council of Governments also participated.

Service involvement in the TBP Working Committee provides opportunities to minimize or mitigate the impacts of habitat alteration on fish and other aquatic species caused by hydropower facilities in the Thunder Bay River system. This outcome is consistent with the "Aquatic Habitat Conservation and Management" priority of the Fisheries Program Vision for the Future.

Aaron Woldt

Cooperation with Native Americans



Lake Whitefish Age Determination

During the month of January, Fishery Biologist Scott Koproski finished aging lake whitefish otoliths collected during the 2004 fishery independent lake whitefish survey. The Alpena FRO is responsible for assessing lake whitefish populations in two management units (WFH-04 and WFH-05) in northern Lake Huron. The study sampling design was established by the Modeling Subcommittee (MSC) of the Technical Fisheries Committee (TFC). The MSC is responsible for developing lake whitefish harvest limits in 1836 Treaty Ceded Waters. In 2004, the Alpena FRO collected 128 lake whitefish during assessment activities in Lake Huron lake whitefish management units WFH-04 and WFH-05. Scales and otoliths were collected from all lake whitefish sampled. Biologist Koproski used the "crack and burn" technique to identify annuli present in the otoliths. This technique allows researchers to differentiate two distinct growth patterns within the structure: broad summer growth and narrow winter growth. By counting the bands of winter growth, age estimates can be obtained from the otoliths. Ages, along with other biological parameters, are used in the statistical catch at age models used by the MSC to develop safe harvest limits in 1836 Treaty Waters.

The Alpena FRO is fulfilling the Service's obligations as a signatory to the 2000 Consent Decree by serving as members of the Technical Fisheries Committee and the Modeling Subcommittee, and by assessing lake whitefish populations in 1836 Treaty ceded waters. This work is an example of Alpena FRO's commitment to the Service's Fisheries Program Vision Priorities of "Cooperation with Native Americans" and "Aquatic Species Conservation and Management."

Scott Koproski

Partnerships and Accountability

Open House Held at Walpole Island

On December 9 Fishery Biologist James Boase attended an open house on Walpole Island, Ontario. The open house was held at the Heritage Center and was attended by approximately 75 people, mostly from the local community. The purpose of the meeting was to meet some of the governing members of the Walpole Island First Nation, research biologists from the island, and researchers from Environment Canada to discuss common fishery and aquatic resource issues. Current research on the island is focused on native mussel recovery efforts taking place on the St. Clair Delta. Walpole Island is one of numerous islands that make up the delta and is one of the last locations in the Great Lakes where a relatively healthy population of native mussels still exists. Researchers from Walpole Island First Nation and Environment Canada have been studying what impacts exotic mussels (zebra mussels) are having on the native species. Work has been on going for the last three years and will continue this coming summer. Boase was invited to assist in the research this summer with the hope that future joint projects between the Service, Environment Canada, and Walpole Island First Nation could be established.

This open house provided an excellent opportunity to interact with local officials and biologists from other agencies and to explain the Service's mission and efforts to manage resources in the Great Lakes. Specifically, information was provided about the efforts of the Service and its partners to rehabilitate native mussel populations in the Great Lakes and the role that the Fishery Resources Offices have in this endeavor. This outreach event supports the "Partnerships and Accountability" and "Aquatic Species Conservation and Management" priorities of the Fisheries Program Vision for the Future.

James Boase

Public Use

Great Lakes Captain's Association Meeting

On January 21, Anjanette Bowen of the Alpena Fishery Resources Office presented information on Asian carp at the Great Lakes Captain's Association annual "Industry Days" conference held in Traverse City, Michigan.

Bowen provided a PowerPoint presentation on problems associated with the four species of Asian Carp that are spreading within the United States. Information was also presented on their effects in the Mississippi River system, current distributions, and the Chicago Shipping and Sanitary Canal Dispersal Barrier Project in Illinois. Over 125 attended the event.

Information used in the presentation was provided in part by Jerry Rasmussen of the Mississippi Interstate Cooperative Resource Association.

Aquatic nuisance species compete with native species for food and habitat resources. Public education about invasives is an important mission of the U.S. Fish and Wildlife Service and necessary in order to conserve protect and enhance native fish and wildlife species for the continuing benefit of the American people. This project addresses the "Public Use" and "Aquatic Species Conservation and Management" components of the Fisheries Program's Vision for the Future.

Anjanette Bowen

Workforce Management

Region 3 MOCC Instructors Coordination Meeting

From January 20 to 22 Fishery Biologist Adam Kowalski attended the annual Motorboat Operator Certification Course (MOCC) Instructors Coordination Meeting in Minneapolis, MN. Attendees included: Anne Sittauer (National MOCC Coordinator)—Sherburne NWR, Dave Wedan (Region 3 MOCC Coordinator)—LaCrosse FRO, Stewart Cogswell—Green Bay FRO, Pat McDermott—Regional Office, Bob Drieslein, Bill Thrune, and Sherri Collins (budget)—Upper Mississippi NWFR, and Tim Peiffer—Marquette Biological Station. Instructors discussed new ideas for the MOCC class, 2005 course scheduling and program budget, training for instructors, and additions and changes to the manual.

A significant amount of time was spent scheduling 2005 courses. Instructors tentatively set course sites and dates, assigned lead and assistant instructors to each, and identified any special needs for a course. Six MOCC courses were scheduled for 2005, including a stand alone open water course. Continued instructor training for open water instructors was briefly mentioned, because additional training is requested of open water instructors to further enhance their boating safety knowledge. Instructors also reviewed the new MOCC instruction manual to check for errors and ensure that all topics were covered thoroughly.

Open water instructors stayed late to discuss new ideas for the three day open water course. This is the first year that the open water module will be a stand alone course.

MOCC instructor coordination meetings are needed to ensure that all employees in Region 3 have the opportunity to attend mandatory boat safety training. This outcome is consistent with the Service's goal of providing employees with opportunities to maintain competencies, improve opportunities for professional achievement, and safely perform their jobs under the "Workforce Management" priority of the Fisheries Program Vision for the Future.

Adam Kowalski